

## Claims

1. A method of transducing a cell in a blood vessel of an individual, comprising introducing a recombinant adeno-associated viral (rAAV) vector to a blood vessel of said individual in vivo.

5           2. A method of transducing a cell in a blood vessel according to claim 1, wherein said rAAV vector comprises a detectable marker gene.

3. A method of transducing a cell in a blood vessel according to claim 1, wherein said rAAV vector comprises a selectable marker gene.

10           4. A method of transducing a cell in a blood vessel according to claim 1, wherein said rAAV vector comprises a therapeutic gene.

5. A method of transducing a cell in a blood vessel according to claim 1, wherein said blood vessel is a microvessel selected from the group consisting of arteriole, capillary, venule, and adventitial microvessel.

15           6. A method of transducing a cell in a blood vessel according to claim 5, wherein said blood vessel is an adventitial microvessel.

7. A method of transducing a cell in a blood vessel according to claim 1, wherein said blood vessel is a microvessel and said cell is undergoing proliferation

8. A method of transducing a cell in a blood vessel according to claim 1, wherein said cell is a primate cell.

20           9. A method of transducing a cell in a blood vessel according to claim 8, wherein said cell is a human cell.

10. A method of transducing a cell in a blood vessel according to claim 1, wherein said cell is a proliferating cell.

11. A method of transducing a cell in a blood vessel according to claim 10, wherein said cell is a proliferating microvascular cell.

5 12. A method of transducing a cell in a blood vessel according to claim 1, wherein said cell is a microvascular cell.

13. A method of transducing a cell in a blood vessel according to claim 12, wherein said cell is a microvascular endothelial cell.

10 14. A method of transducing a cell in a blood vessel according to claim 1, wherein said rAAV vector is introduced into the adventitia of an artery of said individual.

15 15. A transduced microvascular cell produced by introducing a recombinant adeno-associated viral (rAAV) vector to said microvascular cell.

16. A method for treating an individual for a disease condition, comprising transducing a cell in a blood vessel of said individual according to the method of claim 4.